

Receptor Mediated Activation of Heterotrimeric G-proteins

ABSTRACT

Receptor mediated activation of heterotrimeric G-proteins is visualized in living cells by monitoring fluorescence resonance energy transfer (FRET) between subunits of a G protein fused to cyan and yellow fluorescent proteins. The G-protein heterotrimer rapidly dissociates and reassociates upon addition and removal of cognate ligand. Energy transfer pairs of G-proteins enables direct *in situ* detection and have applications for drug screening and GPCR de-orphaning.